

# SEQUENCE LISTING

<110> O'Brien, Timothy J.  
 Cannon, Martin J.  
 Santin, Alessandro

<120> Methods for the early diagnosis of ovarian cancer

<130> D6223CIP/A/D/CIP

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Ser Leu Leu Ser Gly Asp Trp Val Leu  
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Gly Leu Gln Leu Gly Val Gln Ala Val  
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<223> Residues 392-400 of the hepsin protein

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Lys Val Ser Asp Phe Arg Glu Trp Ile  
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Val Leu Gln Glu Ala Arg Val Pro Ile  
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Arg Leu Leu Glu Val Ile Ser Val Cys  
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Ala Leu Thr His Ser Glu Leu Asp Val  
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Val Leu Ser Arg Trp Arg Val Phe Ala  
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<223> Residues 26-34 of the hepsin protein

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Leu Leu Leu Leu Thr Ala Ile Gly Ala  
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Ala Leu Val Asp Gly Lys Ile Cys Thr  
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Phe Leu Ala Ala Ile Cys Gln Asp Cys  
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Leu Leu Ser Gly Asp Trp Val Leu Thr  
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Ala Leu Thr Ala Gly Thr Leu Leu Leu  
5

<210> 41

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<223> Residues 259-267 of the hepsin protein

<400> 41

Ala Leu Val His Leu Ser Ser Pro Leu  
5

<210> 42

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<223> Residues 277-285 of the hepsin protein

<400> 42

Cys Leu Pro Ala Ala Gly Gln Ala Leu  
5

<210> 43

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<223> Residues 230-238 of the hepsin protein

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Leu Gln Leu Gly Val Gln Ala Val Val  
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<223> Residues 268-276 of the hepsin protein

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Pro Leu Thr Glu Tyr Ile Gln Pro Val  
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Ala Ile Gly Ala Ala Ser Trp Ala Ile  
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Leu Val Asp Gly Lys Ile Cys Thr Val  
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Leu Leu Leu Thr Ala Ile Gly Ala Ala  
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 Lys Val Ser Asp Phe Arg Glu Trp Ile  
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 Met Val Phe Asp Lys Thr Glu Gly Thr  
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 Ala Val Val Tyr His Gly Gly Tyr Leu  
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 Gln Val Ser Ser Ala Asp Ala Arg Leu  
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Arg Leu Leu Glu Val Ile Ser Val Cys  
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Leu Gln Leu Gly Val Gln Ala Val Val  
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Ala Leu Thr Ala Gly Thr Leu Leu Leu  
5

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Ala Leu Val His Leu Ser Ser Pro Leu  
5

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 Lys Val Ala Ala Leu Thr Ala Gly Thr  
                     5  
  
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 <223> Residues 285-293 of the hepsin protein  
  
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<223> Residues 27-35 of the hepsin protein

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Leu Leu Leu Thr Ala Ile Gly Ala Ala  
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<210> 63

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Gly Leu Gln Leu Gly Val Gln Ala Val  
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<210> 64

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<223> Residues 313-321 of the hepsin protein

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Arg Val Pro Ile Ile Ser Asn Asp Val  
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<210> 65

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Leu Ser Cys Glu Glu Met Gly Phe Leu  
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<210> 66

<211> 9

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<400> 70  
Val Ser Asp Phe Arg Glu Trp Ile Phe  
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<210> 71  
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His Ser Glu Ala Ser Gly Met Val Thr  
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<210> 72  
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Val Cys Asp Cys Pro Arg Gly Arg Phe  
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<210> 73  
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Leu Thr Glu Tyr Ile Gln Pro Val Cys  
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<210> 74  
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Asp Gln Glu Pro Leu Tyr Pro Val Gln  
5

<210> 75

<211> 9

<212> PRT

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<223> Residues 119-127 of the hepsin protein

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Cys Val Asp Glu Gly Arg Leu Pro His  
5

<210> 76

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<212> PRT

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<223> Residues 68-76 of the hepsin protein

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Lys Thr Glu Gly Thr Trp Arg Leu Leu  
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<210> 77

<211> 9

<212> PRT

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<223> Residues 101-109 of the hepsin protein

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His Ser Glu Leu Asp Val Arg Thr Ala  
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<210> 78

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<212> PRT

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<223> Residues 250-258 of the hepsin protein

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 Val Thr Gly Trp Gly Asn Thr Gln Tyr  
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<223> Residues 378-386 of the hepsin protein

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 Gly Thr Gly Cys Ala Leu Ala Gln Lys  
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<223> Residues 358-366 of the hepsin protein

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<223> Residues 264-272 of the hepsin protein

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Ser Ser Pro Leu Pro Leu Thr Glu Tyr  
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<223> Residues 87-95 of the hepsin protein

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Gly Leu Ser Cys Glu Glu Met Gly Phe  
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<210> 86  
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<223> Residues 272-280 of the hepsin protein

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Tyr Ile Gln Pro Val Cys Leu Pro Ala  
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<210> 87  
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<223> Residues 117-125 of the hepsin protein

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Phe Phe Cys Val Asp Glu Gly Arg Leu  
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<210> 92

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<212> PRT

<213> *Homo sapiens*

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<223> Residues 124-132 of the hepsin protein

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Arg Leu Pro His Thr Gln Arg Leu Leu  
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<210> 93

<211> 9

<212> PRT

<213> *Homo sapiens*

<220>

<223> Residues 80-88 of the hepsin protein

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Arg Ser Asn Ala Arg Val Ala Gly Leu  
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<210> 94

<211> 9

<212> PRT

<213> *Homo sapiens*

<220>

<223> Residues 68-76 of the hepsin protein

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Lys Thr Glu Gly Thr Trp Arg Leu Leu  
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<210> 95

<211> 9

<212> PRT

<213> *Homo sapiens*

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<223> Residues 340-348 of the hepsin protein

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Gly Tyr Pro Glu Gly Gly Ile Asp Ala  
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<210> 96

<211> 9

<212> PRT

<213> *Homo sapiens*

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<223> Residues 242-250 of the hepsin protein

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Gly Tyr Leu Pro Phe Arg Asp Pro Asn  
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<210> 97

<211> 9

<212> PRT

<213> *Homo sapiens*

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<223> Residues 51-59 of the hepsin protein

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Leu Tyr Pro Val Gln Val Ser Ser Ala  
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<210> 98

<211> 9

<212> PRT

<213> *Homo sapiens*

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<223> Residues 259-267 of the hepsin protein

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Ala Leu Val His Leu Ser Ser Pro Leu  
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<210> 99

<211> 9

<212> PRT

<213> *Homo sapiens*

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<223> Residues 277-285 of the hepsin protein



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Cys Leu Pro Ala Ala Gly Gln Ala Leu  
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<210> 100  
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<212> PRT  
<213> *Homo sapiens*

<220>

<223> Residues 191-199 of the hepsin protein

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Ser Leu Leu Ser Gly Asp Trp Val Leu  
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<210> 101  
<211> 9  
<212> PRT  
<213> *Homo sapiens*

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<223> Residues 210-218 of the hepsin protein

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Arg Val Leu Ser Arg Trp Arg Val Phe  
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<210> 102  
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<212> PRT  
<213> *Homo sapiens*

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<223> Residues 222-230 of the hepsin protein

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Val Ala Gln Ala Ser Pro His Gly Leu  
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<210> 103  
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<223> Residues 236-244 of the hepsin protein

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Ala Val Val Tyr His Gly Gly Tyr Leu

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<223> Residues 19-27 of the hepsin protein

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 Ala Ala Leu Thr Ala Gly Thr Leu Leu  
 5

<210> 105  
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<223> Residues 36-44 of the hepsin protein

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 Ser Trp Ala Ile Val Ala Val Leu Leu  
 5

<210> 106  
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 5

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<223> Residues 300-308 of the hepsin protein

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 Gln Tyr Tyr Gly Gln Gln Ala Gly Val  
 5

<210> 108  
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<223> Residues 363-371 of the hepsin protein

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Ile Ser Arg Thr Pro Arg Trp Arg Leu  
5

<210> 109  
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<223> Residues 366-374 of the hepsin protein

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Thr Pro Arg Trp Arg Leu Cys Gly Ile  
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<210> 110  
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<223> Residues 236-244 of the hepsin protein

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Ala Val Val Tyr His Gly Gly Tyr Leu  
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<210> 111  
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<212> PRT  
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Cys Ser Arg Pro Lys Val Ala Ala Leu  
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<212> PRT  
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 <223> Residues 179-187 of the hepsin protein  
  
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 <210> 113  
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 Leu Leu Arg Ser Asp Gln Glu Pro Leu  
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 <210> 114  
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 Ala Ala Leu Thr Ala Gly Thr Leu Leu  
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 <210> 115  
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 <223> Residues 55-63 of the hepsin protein  
  
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 Gln Val Ser Ser Ala Asp Ala Arg Leu  
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<220>

<223> Residues 163-171 of the hepsin protein

<400> 116

Ile Val Gly Gly Arg Asp Thr Ser Leu  
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<210> 117

<211> 9

<212> PRT

<213> *Homo sapiens*

<220>

<223> Residues 140-148 of the hepsin protein

<400> 117

Cys Pro Arg Gly Arg Phe Leu Ala Ala  
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<210> 118

<211> 9

<212> PRT

<213> *Homo sapiens*

<220>

<223> Residues 20-28 of the hepsin protein

<400> 118

Ala Leu Thr Ala Gly Thr Leu Leu Leu  
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<210> 119

<211> 9

<212> PRT

<213> *Homo sapiens*

<220>

<223> Residues 409-417 of the hepsin protein

<400> 119

Glu Ala Ser Gly Met Val Thr Gln Leu  
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<210> 120

<211> 9

<212> PRT

<213> *Homo sapiens*

<220>

<223> Residues 259-267 of the hepsin protein

<400> 120

Ala Leu Val His Leu Ser Ser Pro Leu  
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<210> 121

<211> 9

<212> PRT

<213> *Homo sapiens*

<220>

<223> Residues 35-43 of the hepsin protein

<400> 121

Ala Ser Trp Ala Ile Val Ala Val Leu  
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<210> 122

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<213> *Homo sapiens*

<220>

<223> Residues 184-192 of the hepsin protein

<400> 122

Gly Ala His Leu Cys Gly Gly Ser Leu  
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<210> 123

<211> 9

<212> PRT

<213> *Homo sapiens*

<220>

<223> Residues 18-26 of the hepsin protein

<400> 123

Val Ala Ala Leu Thr Ala Gly Thr Leu  
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<210> 124

<211> 9

<212> PRT

<213> *Homo sapiens*

<220>

<223> Residues 222-230 of the hepsin protein

<400> 124  
Val Ala Gln Ala Ser Pro His Gly Leu  
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<210> 125  
<211> 9  
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<220>

<223> Residues 224-232 of the hepsin protein

<400> 125  
Gln Ala Ser Pro His Gly Leu Gln Leu  
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<210> 126  
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<212> PRT  
<213> *Homo sapiens*

<220>

<223> Residues 265-273 of the hepsin protein

<400> 126  
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<210> 127  
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<212> PRT  
<213> *Homo sapiens*

<220>

<223> Residues 355-363 of the hepsin protein

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Gly Pro Phe Val Cys Glu Asp Ser Ile  
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<210> 128  
<211> 9  
<212> PRT  
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<220>

<223> Residues 13-21 of the hepsin protein

<400> 128

Cys Ser Arg Pro Lys Val Ala Ala Leu  
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<210> 129  
<211> 9  
<212> PRT  
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<220>

<223> Residues 366-374 of the hepsin protein

<400> 129  
Thr Pro Arg Trp Arg Leu Cys Gly Ile  
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<210> 130  
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<220>

<223> Residues 140-148 of the hepsin protein

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Cys Pro Arg Gly Arg Phe Leu Ala Ala  
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<210> 131  
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<223> Residues 152-160 of the hepsin protein

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<210> 132  
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<220>

<223> Residues 363-371 of the hepsin protein

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<210> 133  
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<212> PRT  
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<220>

<223> Residues 133-141 of the hepsin protein

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<210> 134  
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Gln Ile Lys Pro Lys Met Phe Cys Ala  
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<210> 135  
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<220>

<223> Residues 80-88 of the hepsin protein

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<210> 136  
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<220>

<223> Residues 179-187 of the hepsin protein

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Ser Leu Arg Tyr Asp Gly Ala His Leu  
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<210> 137

<211> 9  
<212> PRT  
<213> *Homo sapiens*

<220>

<223> Residues 43-51 of the hepsin protein

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Leu Leu Arg Ser Asp Gln Glu Pro Leu  
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<210> 138  
<211> 9  
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<213> *Homo sapiens*

<220>

<223> Residues 409-417 of the hepsin protein

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Glu Ala Ser Gly Met Val Thr Gln Leu  
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<210> 139  
<211> 9  
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<213> *Homo sapiens*

<220>

<223> Residues 311-319 of the hepsin protein

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Glu Ala Arg Val Pro Ile Ile Ser Asn  
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<210> 140  
<211> 9  
<212> PRT  
<213> *Homo sapiens*

<220>

<223> Residues 222-230 of the hepsin protein

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Val Ala Gln Ala Ser Pro His Gly Leu  
5

<210> 141  
<211> 9  
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<213> *Homo sapiens*

<220>

<223> Residues 19-27 of the hepsin protein

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Ala Ala Leu Thr Ala Gly Thr Leu Leu  
5

<210> 142

<211> 9

<212> PRT

<213> *Homo sapiens*

<220>

<223> Residues 18-26 of the hepsin protein

<400> 142

Val Ala Ala Leu Thr Ala Gly Thr Leu  
5

<210> 143

<211> 9

<212> PRT

<213> *Homo sapiens*

<220>

<223> Residues 184-192 of the hepsin protein

<400> 143

Gly Ala His Leu Cys Gly Gly Ser Leu  
5

<210> 144

<211> 9

<212> PRT

<213> *Homo sapiens*

<220>

<223> Residues 224-232 of the hepsin protein

<400> 144

Gln Ala Ser Pro His Gly Leu Gln Leu  
5

<210> 145

<211> 9

<212> PRT

<213> *Homo sapiens*

<220>

<223> Residues 82-90 of the hepsin protein

<400> 145

Asn Ala Arg Val Ala Gly Leu Ser Cys  
5

<210> 146

<211> 9

<212> PRT

<213> *Homo sapiens*

<220>

<223> Residues 204-212 of the hepsin protein

<400> 146

Cys Phe Pro Glu Arg Asn Arg Val Leu  
5

<210> 147

<211> 9

<212> PRT

<213> *Homo sapiens*

<220>

<223> Residues 212-220 of the hepsin protein

<400> 147

Leu Ser Arg Trp Arg Val Phe Ala Gly  
5

<210> 148

<211> 9

<212> PRT

<213> *Homo sapiens*

<220>

<223> Residues 172-180 of the hepsin protein

<400> 148

Gly Arg Trp Pro Trp Gln Val Ser Leu  
5

<210> 149

<211> 9

<212> PRT

<213> *Homo sapiens*

<220>

<223> Residues 44-52 of the hepsin protein

<400> 149

Leu Arg Ser Asp Gln Glu Pro Leu Tyr  
5

<210> 150

<211> 9

<212> PRT

<213> *Homo sapiens*

<220>

<223> Residues 155-163 of the hepsin protein

<400> 150

Arg Arg Lys Leu Pro Val Asp Arg Ile  
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<210> 151

<211> 9

<212> PRT

<213> *Homo sapiens*

<220>

<223> Residues 213-221 of the hepsin protein

<400> 151

Ser Arg Trp Arg Val Phe Ala Gly Ala  
5

<210> 152

<211> 9

<212> PRT

<213> *Homo sapiens*

<220>

<223> Residues 166-174 of the hepsin protein

<400> 152

Gly Arg Asp Thr Ser Leu Gly Arg Trp  
5

<210> 153

<211> 9

<212> PRT

<213> *Homo sapiens*

<220>

<223> Residues 369-377 of the hepsin protein



<210> 158  
 <211> 9  
 <212> PRT  
 <213> *Homo sapiens*

<220>

<223> Residues 207-215 of the hepsin protein

<400> 158  
 Glu Arg Asn Arg Val Leu Ser Arg Trp  
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<210> 159  
 <211> 9  
 <212> PRT  
 <213> *Homo sapiens*

<220>

<223> Residues 209-217 of the hepsin protein

<400> 159  
 Asn Arg Val Leu Ser Arg Trp Arg Val  
 5

<210> 160  
 <211> 9  
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 <213> *Homo sapiens*

<220>

<223> Residues 14-22 of the hepsin protein

<400> 160  
 Ser Arg Pro Lys Val Ala Ala Leu Thr  
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<210> 161  
 <211> 9  
 <212> PRT  
 <213> *Homo sapiens*

<220>

<223> Residues 106-114 of the hepsin protein

<400> 161  
 Val Arg Thr Ala Gly Ala Asn Gly Thr  
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<210> 162  
<211> 9  
<212> PRT  
<213> *Homo sapiens*

<220>

<223> Residues 129-137 of the hepsin protein

<400> 162  
Gln Arg Leu Leu Glu Val Ile Ser Val  
5

<210> 163  
<211> 9  
<212> PRT  
<213> *Homo sapiens*

<220>

<223> Residues 349-357 of the hepsin protein

<400> 163  
Cys Gln Gly Asp Ser Gly Gly Pro Phe  
5

<210> 164  
<211> 9  
<212> PRT  
<213> *Homo sapiens*

<220>

<223> Residues 61-69 of the hepsin protein

<400> 164  
Ala Arg Leu Met Val Phe Asp Lys Thr  
5

<210> 165  
<211> 9  
<212> PRT  
<213> *Homo sapiens*

<220>

<223> Residues 215-223 of the hepsin protein

<400> 165  
Trp Arg Val Phe Ala Gly Ala Val Ala  
5

<210> 166  
<211> 9



<212> PRT  
 <213> *Homo sapiens*  
  
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 <223> Residues 143-151 of the hepsin protein  
  
 <400> 166  
 Gly Arg Phe Leu Ala Ala Ile Cys Gln  
                     5  
  
 <210> 167  
 <211> 9  
 <212> PRT  
 <213> *Homo sapiens*  
  
 <220>  
  
 <223> Residues 246-254 of the hepsin protein  
  
 <400> 167  
 Phe Arg Asp Pro Asn Ser Glu Glu Asn  
                     5  
  
 <210> 168  
 <211> 9  
 <212> PRT  
 <213> *Homo sapiens*  
  
 <220>  
  
 <223> Residues 132-140 of the hepsin protein  
  
 <400> 168  
 Leu Glu Val Ile Ser Val Cys Asp Cys  
                     5  
  
 <210> 169  
 <211> 9  
 <212> PRT  
 <213> *Homo sapiens*  
  
 <220>  
  
 <223> Residues 91-99 of the hepsin protein  
  
 <400> 169  
 Glu Glu Met Gly Phe Leu Arg Ala Leu  
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 <210> 170  
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 <212> PRT  
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<220>

<223> Residues 264-272 of the hepsin protein

<400> 170

Ser Ser Pro Leu Pro Leu Thr Glu Tyr  
5

<210> 171

<211> 9

<212> PRT

<213> *Homo sapiens*

<220>

<223> Residues 310-318 of the hepsin protein

<400> 171

Gln Glu Ala Arg Val Pro Ile Ile Ser  
5

<210> 172

<211> 9

<212> PRT

<213> *Homo sapiens*

<220>

<223> Residues 319-327 of the hepsin protein

<400> 172

Asn Asp Val Cys Asn Gly Ala Asp Phe  
5

<210> 173

<211> 9

<212> PRT

<213> *Homo sapiens*

<220>

<223> Residues 4-12 of the hepsin protein

<400> 173

Lys Glu Gly Gly Arg Thr Val Pro Cys  
5

<210> 174

<211> 9

<212> PRT

<213> *Homo sapiens*

<220>



<400> 178  
Gln Ala Val Val Tyr His Gly Gly Tyr  
5

<210> 179  
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<212> PRT  
<213> *Homo sapiens*

<220>

<223> Residues 109-117 of the hepsin protein

<400> 179  
Ala Gly Ala Asn Gly Thr Ser Gly Phe  
5

<210> 180  
<211> 9  
<212> PRT  
<213> *Homo sapiens*

<220>

<223> Residues 270-278 of the hepsin protein

<400> 180  
Thr Glu Tyr Ile Gln Pro Val Cys Leu  
5

<210> 181  
<211> 9  
<212> PRT  
<213> *Homo sapiens*

<220>

<223> Residues 174-182 of the hepsin protein

<400> 181  
Trp Pro Trp Gln Val Ser Leu Arg Tyr

<210> 182  
<211> 9  
<212> PRT  
<213> *Homo sapiens*

<220>

<223> Residues 293-301 of the hepsin protein

<400> 182

Val Thr Gly Trp Gly Asn Thr Gln Tyr  
5

<210> 183  
<211> 9  
<212> PRT  
<213> *Homo sapiens*

<220>

<223> Residues 69-77 of the hepsin protein

<400> 183  
Thr Glu Gly Thr Trp Arg Leu Leu Cys  
5

<210> 184  
<211> 9  
<212> PRT  
<213> *Homo sapiens*

<220>

<223> Residues 90-98 of the hepsin protein

<400> 184  
Cys Glu Glu Met Gly Phe Leu Arg Ala  
5

<210> 185  
<211> 9  
<212> PRT  
<213> *Homo sapiens*

<220>

<223> Residues 252-260 of the hepsin protein

<400> 185  
Glu Glu Asn Ser Asn Asp Ile Ala Leu  
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<210> 186  
<211> 9  
<212> PRT  
<213> *Homo sapiens*

<220>

<223> Residues 48-56 of the hepsin protein

<400> 186  
Gln Glu Pro Leu Tyr Pro Val Gln Val  
5

<210> 187  
 <211> 9  
 <212> PRT  
 <213> *Homo sapiens*

<220>

<223> Residues 102-110 of the hepsin protein

<400> 187  
 Ser Glu Leu Asp Val Arg Thr Ala Gly  
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<210> 188  
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 <212> DNA  
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<220>

<223> full length cDNA of hepsin

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 ctgcgggggcc accatgctcc tgcccaggcc tggagactga cccgacccccg 150  
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